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METEOROLOGICAL DATA REPORT

NIKE-HIDAC STV (SR-041)
(25 October 1966)

BY

LEN E. CARTER

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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ECOM
UNITED STATES ARMY ELECTRONICS COMMAND

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DA Task IV650212A127-02

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ABSTRACT

Meteorological data gathered for the launching of Nike-Hyde STV (SR-011) are presented for the Ballistic Systems Division of the U. S. Air Force, Avco Corporation and for ballistic studies. The data appear, along with calculated ballistic data, in tabular form.

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INTRODUCTION

Nike-Hydeco STV (SS-011) was launched from Launch Complex 33, L-31b, White Sands Missile Range (WSMR), New Mexico, at 1320 hours MST, 25 October 1966.

Meteorological data used in conjunction with theoretical calculations to predict rocket impact were collected by the Meteorological Support Division, Atmospheric Sciences Laboratory (ASL), WSMR, New Mexico. The Ballistics Meteorologists for this firing were Len E. Carter and John N. Sharpe.

DISCUSSION

Wind data for the first 216 feet above the surface were obtained from a system composed of 5 anemones mounted on a 216-foot tower and cabled to five component wind indicators.

From 216 to 4,000 feet above the surface, wind data were obtained from double-theodolite-observed balloon ascents.

Temperature, pressure, and humidity data, along with upper wind data from 4,000 to 73,497 feet above the surface, were obtained from standard radiosonde observations.

Mean wind component values in each ballistic zone were determined from vertical cross sections by the equal-area method.

Theoretical rocket performance values and ballistic factors as a function of altitude were provided by ASL, and are the basis for data appearing in Table VIII.

PAYOUT		233	Pounds
CORIOLIS DISPLACEMENT	WEST	4.9	Miles
SECOND-STAGE IGNITION	TIME	20.2	Seconds
SECOND-STAGE IGNITION	ALTITUDE	36,673	Feet ASL
PEAK	TIME	236.8	Seconds
PEAK	ALTITUDE	718,586	Feet ASL
UNIT WIND EFFECT			Miles/Min
POWER TIME EFFECT			Miles/Min
POWER TIME EFFECT		14.08	Miles/Degrees

TABLE I. THEORETICAL ROCKET PERFORMANCE VALUES
NINE-HYDAC STV (SR-OH1)

TABLE II. BASIC VECTORS AS SPIN-ORBITS

AERO- NAME NO. *	MEAN WIND COMPONENTS IN FEET PER HOUR							
	1150 feet	1380 feet	1550 feet	1850 feet	1900 feet	1950 feet	2000 feet	2050 feet
1	N-S	E-N	N-S	E-N	N-S	E-N	N-S	E-N
2	0.0	2.05	1.04	0.58	2.04	0.0	1.04	1.04
3	0.0	2.0	0.0	2.0	3.0	0.0	0.0	0.0
4	0.0	2.0	0.0	0.0	2.0	0.0	1.04	1.04
5	0.0	2.04	0.0	0.0	2.04	0.0	0.0	0.0

TABLE III. ANEMOMETER WIND SPEED AND DIRECTION
NITC-YIDAQ STV (SR-Q11)

* Heights corresponding to Aerovane Numbers: 1 = 115 Feet, 2 = 138 Feet, 3 = 155 Feet, 4 = 185 Feet, 5 = 200 Feet

LAYER IN YEAR ABOVE GROUND	MEAN WIND COMPONENTS IN MILES PER HOUR									
	1150 MET	1820 MET	2350 MET	3450 MET	4950 MET	1000 MET	1300 MET	1300 MET	1300 MET	1300 MET
N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W	N-S
226- 300	2.08	1.03	1.08	1.58	1.08	0.0	0.0	1.08	0.08	0.08
300- 400	3.5	0.5	3.5	2.0	2.5	0.58	1.0	2.0	3.0	1.5
400- 600	2.5	2.0	1.5	0.5	1.0	2.0	2.0	1.5	0.0	0.0
600- 800	2.0	2.0	1.0	0.0	1.5	2.0	2.0	1.0	0.0	0.0
800-1000	2.5	2.0	2.5	0.52	1.5	2.0	2.0	1.0	0.0	0.0
1000-1100	2.5	2.5	3.0	0.0	1.5	2.5	1.0	0.5	0.0	0.0
1100-2000	3.0	0.5	3.0	0.58	2.5	0.0	0.0	0.0	0.0	0.0
2000-2500	3.0	2.0	2.0	0.58	2.0	0.0	0.0	0.0	0.0	0.0
2500-3000	3.0	2.5	3.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
3000-3500	4.0	1.08	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3500-4000	4.08	3.0	5.5	2.5	1.5	0.08	3.0	2.5	2.0	1.5

TABLE IV. MEAN WIND COMPONENTS IN MILES PER HOUR
NIKH-VIDAO STV (ER-01A) (CONT'D)

LAYERS IN FEET ABOVE GROUND	MEAN WIND COMPONENTS IN KNOTS				
	1035 MST	1 2	1320 MST	2	3
N-S	E-W	N-S	E-W	N-S	
8000 - 8263	2.0S	6.0E	4.0S	0.5W	
8263-13000	2.5N	8.0	1.5	5.0E	
13000-19000	17.0	0.0	16.0N	3.0	
19000-25000	21.5	4.0W	18.5	3.5	
25000-30000	17.0	6.0E	8.0	2.5	
30000-36647	10.5	9.0	6.5	7.5	
36647-38000	13.0	7.5	10.5	6.0	
38000-40000	14.0	8.0	11.0	6.5	
40000-45000	17.0	0.0	19.0	7.0W	
45000-50000	12.0	7.0W	14.5	12.0	
50000-55000	9.5	5.5	9.0	7.5	
55000-60000	2.5	8.0E	2.0S	6.0E	
60000-65000	9.0S	1.5	0.0	6.0	
65000-70000	0.5N	4.0	2.5S	6.0	

TABLE V. RAWINSONDE-MEASURED WIND DATA
NIKE-HEDAC SITE (SR-011)

STATION ALTITUDE. 3989.0 FEET MSL
 25 OCT. 66 1035 HRS MST
 ASCENSION NO. 835

UPPER AIR DATA
 0284003904
 WHITE SANDS SITE
 TABLE VI

WSTM SITE COORDINATES
 E 488.580 FEET
 N 185.045 FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE		REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(16N) KNOTS	INDEX OF REFRACTION
		DEGREES	CENTIGRADE					
3989.0	890.0	17.8	-3.6	23.0	1063.7	664.8	30.0	7.0
4000.0	889.6	17.7	-3.7	23.0	1063.6	664.7	29.9	7.0
4500.0	873.8	14.0	-6.8	23.0	1058.5	660.3	26.8	6.2
5000.0	858.1	14.0	-6.8	23.0	1039.6	660.4	23.8	5.5
5500.0	842.7	14.7	-6.2	23.0	1018.2	661.2	20.7	4.7
6000.0	827.5	13.8	-7.0	23.0	1003.1	660.1	17.6	4.0
6500.0	812.5	12.9	-7.8	23.0	988.2	659.0	32.3	3.2
7000.0	797.7	11.9	-8.6	23.0	973.6	657.9	65.5	2.5
7500.0	783.3	11.0	-9.4	23.0	959.2	656.8	92.5	2.8
8000.0	769.1	10.0	-10.2	23.0	945.0	655.7	113.3	4.3
8500.0	755.2	9.1	-11.0	23.0	931.0	654.6	123.6	5.4
9000.0	741.5	8.1	-11.8	23.0	917.3	653.5	127.1	6.2
9500.0	728.0	7.2	-12.6	23.0	903.7	652.3	121.1	6.0
10000.0	714.8	6.2	-13.4	23.1	890.4	651.2	112.6	5.5
10500.0	701.5	5.1	-14.1	23.5	877.4	649.9	95.9	4.9
11000.0	688.5	4.0	-14.9	23.9	864.7	648.5	78.6	4.3
11500.0	675.7	2.9	-15.6	24.3	852.1	647.2	63.1	5.2
12000.0	663.1	1.7	-16.4	24.7	839.7	645.9	47.7	6.2
12500.0	650.8	0.9	-16.9	25.1	826.7	644.9	37.2	7.4
13000.0	638.5	0.5	-17.1	25.4	812.3	644.4	26.8	8.7
13500.0	626.5	0.1	-17.3	25.8	798.2	643.9	17.7	10.3
14000.0	614.7	-0.4	-17.8	25.8	784.6	643.3	9.5	11.7
14500.0	603.1	-1.3	-18.8	25.0	772.3	642.3	4.9	12.3
15000.0	591.7	-2.2	-19.9	24.3	760.1	641.2	2.3	13.1
15500.0	580.4	-3.0	-21.1	23.5	748.1	640.2	3.1	14.1
16000.0	569.4	-3.9	-22.1	22.9	736.3	639.1	3.8	15.3
16500.0	558.3	-5.0	-23.2	22.5	724.9	637.9	4.7	16.7
17000.0	547.5	-6.0	-24.3	22.2	713.6	636.6	5.3	18.3
17500.0	536.9	-7.0	-25.3	21.8	702.5	635.4	5.8	20.1
18000.0	526.5	-8.0	-26.4	21.5	691.5	634.2	5.9	20.8

STATION ALTITUDE 3989.0 FEET MSL
25 OCT. 66 1035 HRS MST
ASCENSION NO. 835

UPPER AIR DATA
0284003904
WHITE SANDS SITE
TABLE VI (Cont)

WSTM SITE COORDINATES
E 468.580 FEET
N 105.045 FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	AIR DEWPOINT DEGREES CENTIGRADE	REL HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
							DIRECTION DEGREES (TN)	SPEED KNOTS	
18500.0	516.3	-9.0	-27.4	21.1	680.8	632.9	5.8	21.3	1.000155
19000.0	506.3	-10.1	-28.5	20.7	670.2	631.7	7.3	21.3	1.000152
19500.0	496.5	-11.1	-29.5	20.4	659.8	630.5	9.1	21.2	1.000150
20000.0	486.8	-12.1	-30.6	20.0	649.6	629.2	9.9	21.4	1.000147
20500.0	477.0	-13.3	-31.4	20.4	639.3	627.8	10.5	21.5	1.000145
21000.0	467.4	-14.4	-32.3	20.5	629.2	626.4	10.1	21.8	1.000142
21500.0	457.9	-15.6	-33.2	20.7	619.2	625.0	9.5	22.2	1.000140
22000.0	448.7	-16.7	-34.0	21.0	609.4	623.6	7.3	22.6	1.000138
22500.0	439.6	-17.9	-34.9	21.2	599.8	622.2	5.4	22.8	1.000135
23000.0	430.7	-19.0	-35.8	21.4	590.3	620.8	4.6	22.3	1.000133
23500.0	422.0	-20.2	-36.7	21.7	581.0	619.4	4.2	21.7	1.000131
24000.0	413.4	-21.3	-37.5	21.9	571.9	618.0	5.2	21.2	1.000129
24500.0	405.1	-22.5	-38.4	22.2	562.9	616.5	6.9	20.6	1.000127
25000.0	396.9	-23.6	-39.3	22.4	554.1	615.1	9.9	20.0	1.000125
25500.0	388.8	-24.8	-40.2	22.7	545.4	613.7	12.4	19.1	1.000123
26000.0	381.0	-26.0	-41.1	22.9	536.9	612.2	14.5	18.0	1.000121
26500.0	373.1	-27.0	-42.0	23.0	527.9	611.0	15.5	17.3	1.000119
27000.0	365.2	-27.9	-42.7	23.0	518.7	609.9	16.0	16.8	1.000116
27500.0	357.5	-28.8	-43.5	23.0	509.7	608.7	16.3	16.2	1.000114
28000.0	350.0	-29.7	-44.3	23.0	500.8	607.6	16.6	15.5	1.000112
28500.0	342.6	-30.6	-45.1	23.0	492.1	606.4	18.6	15.3	1.000110
29000.0	335.4	-31.5	-45.9	23.0	483.6	605.3	20.9	15.3	1.000108
29500.0	328.3	-32.5	-46.7	23.0	475.2	604.1	25.3	14.8	1.000106
30000.0	321.3	-33.8	-47.9	23.0	467.6	602.5	30.0	14.5	1.000105
30500.0	314.4	-35.1	-49.1	23.0	460.1	600.6	36.3	14.7	1.000103
31000.0	307.6	-36.5	-50.2	23.0	452.8	599.0	41.6	15.0	1.000101
31500.0	300.7	-37.8	-51.8	21.8**	445.1	597.4	42.6	15.1	1.000099
32000.0	293.9	-39.0	-53.5	20.3**	437.3	595.8	43.5	15.1	1.000098
32500.0	287.3	-40.3	-55.2	18.8**	429.8	594.2	44.2	14.4	1.000096
33000.0	280.8	-41.5	-57.0	17.2**	422.3	592.6	42.7	13.7	1.000094

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.0 FEET MSL
25 OCT. 66 1035 HRS MST
ASCENSION NO. 835

UPPER AIR DATA
0284003904
WHITE SANDS SITE
TABLE VI (Cont)

WSTM SITE COORDINATES
E 488.580 FEET
N 185.045 FEET

GEOMETRIC ALTITUDE HSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPPOINT DEGREES CENTIGRADE		REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(UTN)		INDEX OF REFRACTION
		DEGREES	CENTIGRADE				DEGREES	KNOTS	
33500.0	274.5	-42.8	-58.8	15.7**	415.0	591.0	38.7	12.9	1.000093
34000.0	268.3	-44.0	-60.6	14.2**	407.9	589.4	35.8	12.5	1.000091
34500.0	262.2	-45.3	-62.5	12.7**	400.8	587.8	33.6	12.2	1.000089
35000.0	256.3	-46.5	-64.5	11.1**	393.9	586.2	33.2	12.7	1.000088
35500.0	250.5	-47.6	-66.6	9.6**	387.2	584.6	33.1	13.4	1.000086
36000.0	244.8	-49.0	-68.8	8.1**	380.6	583.0	32.0	13.8	1.000085
36500.0	239.3	-50.3	-71.3	6.5**	374.0	581.3	30.9	14.3	1.000083
37000.0	233.9	-51.5	-74.0	5.0**	367.7	579.7	29.4	14.5	1.000082
37500.0	228.6	-52.7	-77.3	3.5**	361.4	578.1	27.9	14.7	1.000080
38000.0	223.4	-54.0	-81.8	2.0**	355.2	576.4	27.0	15.3	1.000079
38500.0	218.4	-55.2	-91.1	0.4**	349.2	574.8	26.2	15.8	1.000078
39000.0	213.3	-56.2	0.	-0.**	342.5	573.5	28.4	16.2	1.000076
39500.0	208.2	-57.0	0.	-0.**	335.7	572.4	31.1	16.5	1.000075
40000.0	203.3	-57.9	0.	-0.**	329.0	571.3	29.6	16.6	1.000073
40500.0	198.4	-58.7	0.	-0.**	322.4	570.2	27.5	16.7	1.000072
41000.0	193.7	-59.4	0.	-0.**	315.8	569.2	18.1	16.7	1.000070
41500.0	189.1	-58.5	0.	-0.**	307.0	570.5	8.1	16.8	1.000068
42000.0	184.6	-57.6	0.	-0.**	298.3	571.7	356.4	18.6	1.000066
42500.0	180.2	-57.3	0.	-0.**	290.9	572.1	344.6	20.4	1.000065
43000.0	175.9	-58.1	0.	-0.**	284.8	571.1	341.8	21.3	1.000063
43500.0	171.6	-58.8	0.	-0.**	279.0	570.1	339.2	22.1	1.000062
44000.0	167.5	-59.6	0.	-0.**	273.2	569.1	337.6	21.0	1.000061
44500.0	163.5	-60.3	0.	-0.**	267.6	568.1	336.0	19.8	1.000060
45000.0	159.5	-61.1	0.	-0.**	262.0	567.1	335.4	18.1	1.000058
45500.0	155.7	-61.8	0.	-0.**	256.6	566.1	334.8	16.4	1.000057
46000.0	151.9	-62.6	0.	-0.**	251.4	565.1	328.2	14.2	1.000056
46500.0	148.3	-63.3	0.	-0.**	246.2	564.1	321.2	11.9	1.000055
47000.0	144.7	-64.1	0.	-0.**	241.1	563.1	312.3	11.9	1.000054
47500.0	141.2	-64.6	0.	-0.**	235.8	562.4	303.1	12.1	1.000052
48000.0	137.7	-65.0	0.	-0.**	230.5	561.8	300.2	12.5	1.000051

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.0 FEET MSL
25 OCT. 66 1035 HRS MST
ASCENSION NO. 835

UPPER AIR DATA
0284003904
WHITE SANDS SITE
TABLE VI (Cont)

GEOMETRIC ALTITUDE HSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	SOUND METER	DENSITY GR/CUBIC METER	WIND DATA DIRECTION DEGREES(UTM) REFRACTION	SPEED KNOTS	INDEX OF REFRACTION
48500.0	134.3	-65.5	0.	-0.	225.3	299.2	13.0	1.000030
49000.0	131.0	-65.9	0.	-0.	220.2	303.6	13.4	1.000049
49500.0	127.8	-66.4	0.	-0.	215.2	305.2	13.7	1.000048
50000.0	124.6	-66.3	0.	-0.	209.9	310.5	13.2	1.000047
50500.0	121.5	-65.6	0.	-0.	204.1	316.5	12.3	1.000045
51000.0	118.4	-65.0	0.	-0.	198.4	320.0	11.1	1.000044
51500.0	115.6	-65.0	0.	-0.	193.6	322.5	9.8	1.000043
52000.0	112.8	-66.0	0.	-0.	189.6	322.0	9.5	1.000042
52500.0	110.0	-66.9	0.	-0.	185.7	319.9	9.8	1.000041
53000.0	107.2	-67.8	0.	-0.	182.0	321.4	9.9	1.000041
53500.0	104.6	-68.6	0.	-0.	178.3	326.3	9.9	1.000040
54000.0	102.0	-69.7	0.	-0.	174.6	333.8	9.4	1.000039
54500.0	99.4	-69.4	0.	-0.	170.0	355.9	8.0	1.000038
55000.0	96.9	-69.0	0.	-0.	165.5	356.5	6.9	1.000037
55500.0	94.5	-68.7	0.	-0.	161.1	356.8	6.7	1.000036
56000.0	92.2	-68.3	0.	-0.	156.8	357.3	28.4	1.000035
56500.0	89.9	-68.0	0.	-0.	152.6	357.7	43.3	1.000034
57000.0	87.6	-67.7	0.	-0.	148.5	358.2	58.3	1.000033
57500.0	85.4	-67.4	0.	-0.	144.7	358.5	67.5	1.000032
58000.0	83.3	-67.6	0.	-0.	141.2	358.3	75.5	1.000031
58500.0	81.3	-67.1	0.	-0.	137.4	358.9	84.5	1.000031
59000.0	79.3	-66.5	0.	-0.	133.7	359.7	93.9	1.000030
59500.0	77.3	-66.0	0.	-0.	130.0	360.5	105.0	1.000029
60000.0	75.4	-65.4	0.	-0.	126.5	361.3	116.9	1.000028
60500.0	73.6	-64.8	0.	-0.	123.0	362.0	124.2	1.000027
61000.0	71.8	-64.2	0.	-0.	119.7	362.8	129.8	1.000027
61500.0	70.0	-63.7	0.	-0.	116.4	363.6	139.5	1.000026
62000.0	68.3	-63.1	0.	-0.	113.3	364.3	150.3	1.000025
62500.0	66.6	-62.5	0.	-0.	110.2	365.1	154.7	1.000025
63000.0	65.0	-62.3	0.	-0.	107.4	365.4	157.5	1.000024

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.0 FEET MSL
25 OCT. 66 1035 HRS MST
ASCENSION NO. 635

UPPER AIR DATA
0284003904
WHITE SANDS SITE
TABLE VI (Cont)

WSTM SITE COORDINATES
E 488, 580 FEET
N 185, 045 FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPPOINT DEGREES CENTIGRADE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
		DEGREES	CENTIGRADE						
63500.0	63.4	-62.3	0.	-0. **	104.8	565.4	165.4	5.0	1.000023
64000.0	61.9	-60.6	0.	-0. **	101.5	567.7	174.5	3.1	1.000023
64500.0	60.4	-58.3	0.	-0. **	97.9	570.8	211.5	2.7	1.000022
65000.0	59.0	-57.7	0.	-0. **	95.4	571.5	257.0	2.6	1.000021
65500.0	57.6	-57.8	0.	-0. **	93.2	571.4	286.1	3.9	1.000021
66000.0	56.2	-58.0	0.	-0. **	91.0	571.2	308.6	5.6	1.000020
66500.0	54.9	-58.1	0.	-0. **	88.9	571.0	327.8	6.0	1.000020
67000.0	53.6	-58.2	0.	-0. **	86.8	570.8	343.8	5.2	1.000019
67500.0	52.3	-57.7	0.	-0. **	84.6	571.6	0.1	4.5	1.000019
68000.0	51.1	-56.5	0.	-0. **	82.1	573.1	19.0	4.3	1.000018
68500.0	49.9	-55.3	0.	-0. **	79.8	574.6	37.9	4.1	1.000018
69000.0	48.7	-54.6	0.	-0. **	77.6	575.6	53.1	3.9	1.000017
69500.0	47.6	-55.1	0.	-0. **	76.0	574.9	65.8	3.5	1.000017
70000.0	46.4	-55.6	0.	-0. **	74.4	574.3	77.4	3.2	1.000017
70500.0	45.3	-56.2	0.	-0. **	72.8	573.6	72.0	2.9	1.000016
71000.0	44.3	-56.7	0.	-0. **	71.3	572.9	66.7	2.5	1.000016
71500.0	43.2	-56.5	0.	-0. **	69.6	573.1	65.5	2.3	1.000015
72000.0	42.2	-56.2	0.	-0. **	67.8	573.6	68.0	2.0	1.000015
72500.0	41.3	-55.8	0.	-0. **	66.1	574.0	70.4	1.8	1.000015
73000.0	40.3	-55.4	0.	-0. **	64.5	574.5	66.3	2.6	1.000014
73500.0	39.4	-55.1	0.	-0. **	62.9	575.0	102.6	3.6	1.000014
74000.0	38.4	-54.7	0.	-0. **	61.3	575.5	119.9	4.0	1.000013
74500.0	37.5	-54.4	0.	-0. **	59.8	576.0	139.2	3.6	1.000013
75000.0	36.7	-54.0	0.	-0. **	58.3	576.4	158.5	3.2	1.000013
75500.0	35.8	-53.6	0.	-0. **	56.8	576.9	121.6	2.3	1.000013
76000.0	35.0	-53.3	0.	-0. **	55.4	577.4	64.2	1.3	1.000012
76500.0	34.2	-52.9	0.	-0. **	54.1	577.9	14.1	0.7	1.000012
77000.0	33.4	-52.5	0.	-0. **	52.7	578.3	22.9	2.8	1.000012
77500.0	32.6	-52.2	0.	-0. **	51.4	578.8	31.8	4.9	1.000011
78000.0	31.8	-51.8	0.	-0. **	50.1	579.3	41.9	6.3	1.000011

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.0 FEET MSL
25 OCT. 66 1035 HRS MST
ASCENSION NO. 835

UPPER AIR DATA
0284003904
WHITE SANDS SITE
TABLE VI (Cont)

WSTM SITE COORDINATES
E 488.580 FEET
N 185.045 FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWEPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
93500.0	15.5	-45.8	0.	-0.	587.1	77.3	18.3	1.000005
94000.0	15.2	-45.6	0.	-0.	587.4	81.5	18.2	1.000005
94500.0	14.8	-45.3	0.	-0.	587.7	86.2	17.5	1.000005
95000.0	14.5	-45.1	0.	-0.	588.0	91.0	16.8	1.000005
95500.0	14.2	-44.97	0.	-0.	588.3	96.4	16.2	1.000005
96000.0	13.9	-44.87	0.	-0.	588.6	103.3	15.5	1.000005
96500.0	13.6	-44.74	0.	-0.	588.9	110.3	14.8	1.000005
97000.0	13.3	-44.62	0.	-0.	589.2	127.5	14.1	1.000004
97500.0	13.0	-43.59	0.	-0.	589.5	127.6	13.4	1.000004
98000.0	12.7	-43.57	0.	-0.	589.8	137.7	12.7	1.000004
98500.0	12.4	-43.56	0.	-0.	590.1	147.9	11.9	1.000004
99000.0	12.1	-43.53	0.	-0.	590.4	157.4	12.2	1.000004
99500.0	11.8	-43.50	0.	-0.	590.7	166.9	12.7	1.000004
100000.0	11.6	-42.8	0.	-0.	591.0	176.3	13.1	1.000004
100500.0	11.3	-42.6	0.	-0.	591.3	181.8	13.3	1.000004
101000.0	11.1	-42.3	0.	-0.	591.6	185.2	13.5	1.000004
101500.0	10.8	-42.1	0.	-0.	591.9	188.7	13.6	1.000004
102000.0	10.6	-41.9	0.	-0.	592.2	191.4	13.5	1.000004
102500.0	10.4	-41.6	0.	-0.	592.4	293.4	13.1	1.000003
103000.0	10.1	-41.4	0.	-0.	592.7	195.4	12.6	1.000003
103500.0	9.9	-41.2	0.	-0.	593.0	197.8	12.2	1.000003
104000.0	9.7	-41.0	0.	-0.	593.3	201.9	11.7	1.000003
104500.0	9.5	-40.7	0.	-0.	593.6	205.9	11.2	1.000003
105000.0	9.3	-40.5	0.	-0.	593.9	210.0	10.7	1.000003
105500.0	9.1	-40.3	0.	-0.	594.2	221.2	10.1	1.000003
106000.0	8.9	-39.3	0.	-0.	595.4	232.2	9.4	1.000003
106500.0	8.7	-38.1	0.	-0.	596.9	243.0	8.8	1.000003
107000.0	8.5	-36.9	0.	-0.	598.4	244.1	9.0	1.000003
107500.0	8.3	-36.5	0.	-0.	598.9	240.4	9.4	1.000003
108000.0	8.1	-36.8	0.	-0.	598.6	236.8	9.9	1.000003

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3969.0 FEET MSL
25 OCT. 66 1035 HRS MST
ASSIGNMENT NO. 835

UPPER AIR DATA
0284003904
WHITE SANDS SITE
TABLE VI (Cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	SPEED OF SOUND METER KNOTS	WIND DATA DIRECTION DEGREES (THE) KNOTS	INDEX OF REFRACTION
108500.0	7.9	-37.0	0.	-0.	11.7	596.3
109000.0	7.8	-37.3	0.	-0.	11.5	596.0
109500.0	7.6	-37.6	0.	-0.	11.2	597.7
110000.0	7.4	-37.8	0.	-0.	11.0	597.3
110500.0	7.3	-38.1	0.	-0.	10.8	597.0
111000.0	7.1	-38.3	0.	-0.	10.6	596.7
111500.0	7.0	-38.6	0.	-0.	10.3	596.4
112000.0	6.8	-38.8	0.	-0.	10.1	596.0
112500.0	6.7	-39.1	0.	-0.	9.9	595.7

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE HAS BEEN USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.0 FEET MSL
25 OCT. 66 1320 HRS MST
ASCENSION NO. 836

UPPER AIR DATA
0284003905
WHITE SANDS SITE
TABLE Y11

WSTM SITE COORDINATES
E 488.580 FEET
N 102.045 FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES ITN	WIND SPEED KNOTS	INDEX OF REFRACTION
3989.0	887.8	22.5	-2.3	19.0	1043.9	670.3	180.0	1.000255
4000.0	887.5	22.5	-2.3	19.0	1043.7	670.2	179.8	1.000255
4500.0	871.8	20.8	-3.2	19.7	1031.3	668.2	172.6	1.000251
5000.0	856.3	19.1	-4.1	20.4	1019.1	666.3	165.3	1.000247
5500.0	841.2	17.3	-5.1	21.1	1007.0	664.3	158.1	1.000243
6000.0	826.3	15.6	-6.1	21.9	995.2	662.3	150.9	1.000239
6500.0	811.7	13.9	-7.1	22.6	983.5	660.3	154.5	1.000236
7000.0	797.1	12.4	-8.0	23.2	970.9	658.6	176.5	1.000232
7500.0	782.4	11.3	-8.8	23.6	956.9	657.2	109.0	1.000228
8000.0	768.0	10.2	-9.5	24.0	943.2	655.9	187.6	1.000224
8500.0	753.9	9.0	-10.3	24.5	929.6	654.5	186.0	1.000221
9000.0	740.0	7.9	-11.0	24.9	916.3	653.2	164.2	1.000217
9500.0	726.4	6.7	-11.8	25.3	903.1	651.9	175.5	1.000213
10000.0	713.0	5.6	-12.6	25.7	890.2	650.5	149.3	1.000210
10500.0	699.9	4.4	-13.4	26.2	877.4	649.1	76.0	1.000206
11000.0	687.0	3.3	-14.2	26.6	864.9	647.4	48.0	1.000201
11500.0	674.4	2.1	-15.0	27.0	852.5	646.4	51.7	1.000200
12000.0	661.9	1.0	-15.8	27.4	840.4	645.0	48.0	1.000196
12500.0	649.8	-0.1	-16.6	27.9	828.4	643.7	42.8	1.000193
13000.0	637.6	-0.8	-17.4	27.3	814.8	642.9	35.4	1.000190
13500.0	625.5	-1.2	-18.2	26.3	800.6	642.4	27.9	1.000186
14000.0	613.7	-1.6	-19.0	25.3	786.6	642.0	20.5	1.000182
14500.0	602.0	-2.0	-19.8	24.3	772.9	641.5	14.8	1.000179
15000.0	590.6	-2.4	-20.6	23.3	759.4	641.0	9.0	1.000175
15500.0	579.4	-3.6	-22.0	22.6	748.5	639.4	0.2	1.000172
16000.0	568.3	-5.3	-23.8	22.0	739.0	627.4	6.8	1.000169
16500.0	557.4	-5.4	-24.2	21.3	724.9	637.3	5.4	1.000166
17000.0	546.7	-6.1	-25.3	20.5	713.0	636.4	4.9	1.000163
17500.0	536.1	-7.3	-26.5	20.0	702.3	635.0	6.1	1.000160
18000.0	525.6	-8.3	-27.3	20.0	671.1	633.9	8.0	1.000157

STATION ALTITUDE 3989.0 FEET MSL
25 OCT. 66 1320 HRS MST
ASCENSION NO. 836

UPPER AIR DATA
0284003905
WHITE SANDS SITE
TABLE VII (Cont)

WEST SITE COORDINATES
E 498, 500 FEET
N 185, 045 FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	SOUND METER KNOTS	WIND DATA SPEED DEGREES (TN)	INDEX OF REFRACTION	
						GM/CUBIC METER	DIRECTION KNOTS
18500.0	515.4	-9.2	-28.1	20.0	680.0	632.7	10.6
19000.0	505.3	-10.1	-28.9	20.0	669.2	631.6	11.9
19500.0	495.5	-11.1	-29.7	20.0	658.5	630.5	12.8
20000.0	485.8	-12.0	-30.5	20.0	648.0	629.3	13.8
20500.0	476.2	-13.1	-31.3	20.2	637.8	628.0	14.7
21000.0	466.7	-14.4	-32.1	20.8	628.2	626.5	20.1
21500.0	457.4	-15.7	-32.9	21.4	618.7	624.2	21.0
22000.0	448.3	-16.9	-33.8	21.9	609.4	623.3	21.1
22500.0	439.3	-18.2	-34.6	22.5	600.3	621.8	21.2
23000.0	430.5	-19.5	-35.4	23.0	591.1	620.3	21.3
23500.0	421.6	-20.4	-36.3	22.9	581.0	619.1	21.4
24000.0	412.7	-21.3	-37.1	22.8	571.1	618.0	21.5
24500.0	404.4	-22.2	-38.0	22.7	561.4	616.9	21.6
25000.0	396.1	-23.1	-38.8	22.6	551.8	615.7	21.7
25500.0	387.9	-24.1	-39.6	22.5	542.4	614.6	21.8
26000.0	379.9	-25.0	-40.5	22.4	533.2	613.5	21.9
26500.0	372.1	-25.9	-41.3	22.3	524.2	612.3	22.0
27000.0	364.4	-26.8	-42.1	22.2	515.3	611.2	22.1
27500.0	356.9	-27.7	-43.0	22.1	506.6	610.0	22.2
28000.0	349.5	-28.7	-43.8	22.0	498.0	608.9	22.3
28500.0	342.2	-29.8	-44.8	22.1	489.8	607.5	22.4
29000.0	334.9	-31.1	-45.8	22.3	482.0	605.3	22.5
29500.0	327.7	-32.4	-46.9	22.5	474.3	604.2	22.6
30000.0	320.8	-33.7	-47.9	22.7	466.7	602.5	22.7
30500.0	313.5	-35.0	-49.0	22.9	459.3	600.9	22.8
31000.0	307.1	-36.3	-50.8	21.2**	451.7	599.3	22.9
31500.0	300.3	-37.6	-53.0	18.6**	444.1	597.6	23.0
32000.0	293.6	-38.9	-55.3	16.1**	436.7	596.0	23.1
32500.0	287.1	-40.2	-57.8	13.5**	429.4	594.3	23.2
33000.0	280.8	-41.5	-60.5	11.0**	422.2	592.7	23.3

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.0 FEET MSL
25 OCT. 56 1320 HRS MST
ASCENSION NO. 836

UPPER AIR DATA
C284003905
WHITE SANDS SITE
TABLE VII (Cont)

WSTM SITE COORDINATES
E 488, 580 FEET
N 185, 045 FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEPOINT DEGREES	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF WIND KNOTS	WIND DATA DIRECTION DEGREES(TN)	INDEX OF REFRACTION
33500.0	274.6	-42.7	-63.5	8.4**	415.2	591.0	11.2
34000.0	268.5	-44.0	-67.1	5.9**	408.3	589.4	11.4
34500.0	262.6	-45.3	-72.0	3.3**	401.5	587.7	11.3
35000.0	256.8	-46.6	-82.0	0.8**	394.9	586.1	10.9
35500.0	250.9	-47.8	0.	0.**	388.0	584.5	10.7
36000.0	245.1	-49.0	0.	0.**	381.0	582.9	10.7
36500.0	239.4	-50.2	0.	0.**	374.1	581.4	10.7
37000.0	233.9	-51.4	0.	0.**	367.4	579.9	10.7
37500.0	228.4	-52.6	0.	0.**	360.9	578.3	10.9
38000.0	223.2	-53.8	0.	0.**	354.4	576.7	11.1
38500.0	218.0	-55.0	0.	0.**	348.1	575.2	12.6
39000.0	212.9	-56.2	0.	0.**	341.9	573.6	14.2
39500.0	208.0	-57.2	0.	0.**	335.6	572.2	14.1
40000.0	203.0	-57.8	0.	0.**	328.4	571.4	14.1
40500.0	198.2	-58.4	0.	0.**	321.5	570.7	13.2
41000.0	193.5	-58.9	0.	0.**	314.7	569.9	15.7
41500.0	188.8	-59.4	0.	0.**	307.0	569.3	17.2
42000.0	184.3	-57.3*	0.	0.**	297.5	572.1	17.2
42500.0	179.9	-57.8	0.	0.**	291.1	571.4	17.2
43000.0	175.6	-58.3	0.	0.**	284.8	570.7	17.2
43500.0	171.4	-58.9	0.	0.**	278.7	570.0	19.1
44000.0	167.3	-59.4	0.	0.**	272.6	569.3	20.9
44500.0	163.3	-59.9	0.	0.**	266.8	568.6	22.5
45000.0	159.3	-60.4	0.	0.**	261.0	567.9	23.6
45500.0	155.5	-61.0	0.	0.**	255.4	567.2	17.9
46000.0	151.8	-61.5	0.	0.**	249.9	566.5	16.8
46500.0	148.1	-62.0	0.	0.**	244.5	565.6	15.9
47000.0	144.6	-62.6	0.	0.**	239.2	563.0	17.1
47500.0	141.0	-63.3	0.	0.**	234.1	564.1	18.4
48000.0	137.6	-64.0	0.	0.**	229.1	563.2	19.4

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.0 FEET MSL
25 OCT. 66 1320 HRS MST
ASCENSION NO.: 836

UPPER AIR DATA
0284003905
WHITE SANDS SITE
TABLE VII (Cont)

MSTH SITE COORDINATES
E 488.580 FEET
N 185.045 FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE HILLIBARS	TEMPERATURE AIR DEPONENT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(UTN)	SPEED KNOTS	INDEX OF REFRACTION
48500.0	134.2	-64.6	0.	224.3	562.2	320.6	21.4	1.000050
49000.0	130.9	-65.3	0.	219.5	561.3	328.8	21.7	1.000049
49500.0	127.7	-66.0	0.	214.8	560.4	331.2	19.9	1.000048
50000.0	124.6	-66.5	0.	210.0	559.7	333.3	17.9	1.000047
50500.0	121.5	-66.8	0.	205.1	559.3	334.0	15.4	1.000046
51000.0	118.5	-67.1	0.	200.3	559.0	333.9	13.0	1.000045
51500.0	115.5	-67.4	0.	195.6	558.6	328.9	11.4	1.000044
52000.0	112.7	-67.6	0.	191.0	558.2	323.9	9.8	1.000043
52500.0	109.9	-67.9	0.	186.5	557.8	327.4	9.4	1.000042
53000.0	107.1	-68.6	0.	182.6	556.6	330.8	9.0	1.000041
53500.0	104.4	-69.7	0.	178.8	555.5	335.8	7.0	1.000040
54000.0	101.8	-70.5	0.	175.0	554.3	340.8	4.9	1.000039
54500.0	99.2	-70.4	0.	170.3	554.8	353.1	4.0	1.000038
55000.0	96.8	-69.4	0.	164.6	557.2	6.2	3.2	1.000037
55500.0	94.4	-68.2	0.	160.4	557.5	38.6	3.4	1.000036
56000.0	92.0	-68.0	0.	156.2	557.7	74.5	3.7	1.000035
56500.0	89.7	-67.8	0.	152.2	558.0	89.8	3.9	1.000034
57000.0	87.5	-67.6	0.	148.3	558.3	96.8	4.0	1.000033
57500.0	85.3	-67.4	0.	144.4	558.6	102.3	4.5	1.000032
58000.0	83.2	-67.1	0.	140.7	558.9	105.9	5.5	1.000031
58500.0	81.1	-66.9	0.	137.1	559.1	112.1	6.3	1.000031
59000.0	79.1	-66.7	0.	133.5	559.4	131.5	6.4	1.000030
59500.0	77.2	-66.5	0.	130.1	559.7	151.0	6.6	1.000029
60000.0	75.3	-66.1	0.	126.6	560.3	159.6	5.4	1.000028
60500.0	73.4	-65.4	0.	123.1	561.3	167.1	4.0	1.000027
61000.0	71.6	-64.6	0.	119.7	562.3	187.9	2.8	1.000027
61500.0	69.9	-63.9	0.	116.4	563.3	211.4	1.5	1.000026
62000.0	68.2	-63.1	0.	113.2	564.3	290.4	1.1	1.000025
62500.0	66.6	-62.4	0.	110.0	565.3	17.3	1.0	1.000024
63000.0	64.9	-61.6	0.	107.0	566.3	56.1	1.0	1.000024

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.0 FEET MSL
25 OCT. 66 1320 HRS MST
ASCENSION NO. 836

UPPER AIR DATA
0284003905
WHITE SANDS SITE
TABLE VII (Cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPPOINT DEGREES CENTIGRADE	REFL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TIN)	SPEED KNOTS	
63500.0	63.4	-60.9	0.	**	104.0	567.3	90.5	1.0
64000.0	61.8	-60.1	0.	**	101.1	568.3	100.8	1.3
64500.0	60.3	-59.4	0.	**	98.3	569.3	109.0	1.7
65000.0	58.9	-58.7	0.	**	95.7	570.2	87.9	2.3
65500.0	57.5	-59.0	0.	**	93.5	569.8	61.1	2.9
66000.0	56.1	-59.3	0.	**	91.4	569.4	57.0	3.6
66500.0	54.8	-59.6	0.	**	89.3	569.0	64.0	4.2
67000.0	53.5	-59.4	0.	**	87.1	569.3	77.4	3.9
67500.0	52.2	-58.5	0.	**	84.7	570.5	97.5	2.8
68000.0	50.9	-57.6	c.	**	82.3	571.7	122.9	2.1
68500.0	49.7	-56.7	0.	**	80.1	572.9	160.2	2.0
69000.0	48.6	-55.7	0.	**	77.8	574.1	197.6	1.9
69500.0	47.4	-55.2	c.	**	75.8	574.8	216.3	2.5
70000.0	46.3	-55.1	c.	**	74.0	575.0	230.4	3.1
70500.0	45.2	-54.9	0.	**	72.2	575.2	244.5	3.8
71000.0	44.2	-54.7	0.	**	70.5	575.4	264.4	3.3
71500.0	43.2	-54.6	0.	**	68.8	575.6	284.6	2.7
72000.0	42.1	-54.4	0.	**	67.1	575.9	299.4	2.2
72500.0	41.2	-54.3	0.	**	65.5	576.1	272.5	1.6
73000.0	40.2	-54.1	0.	**	63.9	576.3	245.7	1.0
73500.0	39.3	-54.0	0.	**	62.4	576.5	235.7	0.6
74000.0	38.3	-53.8	0.	**	60.9	576.7	272.9	1.1
74500.0	37.5	-53.7	0.	**	59.4	576.9	310.1	1.6
75000.0	36.6	-53.5	0.	**	58.0	577.1	334.0	2.4
75500.0	35.7	-53.3	0.	**	56.6	577.3	339.0	3.7
76000.0	34.9	-53.2	0.	**	55.3	577.5	343.9	4.9
76500.0	34.1	-53.2	0.	**	54.0	577.4	351.9	6.4
77000.0	33.3	-53.3	0.	**	52.8	577.4	1.7	7.9
77500.0	32.5	-53.3	0.	**	51.5	577.3	11.5	9.4
78000.0	31.8	-53.4	0.	**	50.4	577.2	19.9	9.8

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.0 FEET MSL
25 OCT. 66 1320 HRS MST
ASCENSION NO. 836

UPPER AIR DATA
0284003905
WHITE SANDS SITE
TABLE VII (Cont)

WSTM SITE COORDINATES
E 488.580 FEET
N 185.045 FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES ITN	WIND DATA KNOTS	INDEX OF REFRACTION
78500.0	31.0	-53.4	-0.	49.2	577.2	28.1	10.0	1.000011
79000.0	30.3	-53.5	-0.	48.1	577.1	36.7	10.4	1.000011
79500.0	29.6	-53.5	-0.	47.0	577.1	47.5	11.2	1.000010
80000.0	28.9	-53.5	-0.	45.9	577.0	58.2	12.1	1.000010
80500.0	28.2	-53.6	-0.	44.8	577.0	67.1	12.4	1.000010
81000.0	27.6	-53.2	-0.	43.7	577.5	73.9	12.0	1.000010
81500.0	27.0	-52.6	-0.	42.6	578.3	80.6	11.6	1.000009
82000.0	26.3	-51.9	-0.	41.5	579.2	80.3	11.9	1.000009
82500.0	25.7	-51.3	-0.	40.4	580.0	77.4	12.5	1.000009
83000.0	25.1	-50.6	-0.	39.4	580.8	74.6	13.0	1.000009
83500.0	24.6	-50.0	-0.	38.4	581.7	75.3	13.9	1.000009
84000.0	24.0	-49.4	-0.	37.4	582.5	76.0	14.8	1.000008
84500.0	23.5	-48.7	-0.	36.4	583.3	76.2	15.6	1.000008
85000.0	22.9	-48.2	-0.	35.5	584.0	75.2	15.9	1.000008
85500.0	22.4	-48.1	-0.	34.7	584.1	74.2	16.2	1.000008
86000.0	21.9	-48.0	-0.	33.9	584.2	74.1	16.3	1.000008
86500.0	21.4	-48.0	-0.	33.1	584.3	75.2	16.0	1.000007
87000.0	20.9	-47.9	-0.	32.3	584.4	76.4	15.7	1.000007
87500.0	20.4	-47.8	-0.	31.6	584.5	77.6	14.8	1.000007
88000.0	20.0	-47.8	-0.	30.9	584.6	79.0	13.6	1.000007
88500.0	19.5	-47.7	-0.	30.2	584.7	80.4	12.3	1.000007
89000.0	19.1	-47.6	-0.	29.5	584.8	80.7	12.3	1.000007
89500.0	18.7	-47.5	-0.	28.8	584.9	80.2	13.1	1.000006
90000.0	18.2	-47.5	-0.	28.1	585.0	79.7	14.0	1.000006
90500.0	17.8	-47.4	-0.	27.5	585.1	85.5	14.9	1.000006
91000.0	17.4	-47.3	-0.	26.9	585.2	94.1	15.8	1.000006
91500.0	17.0	-47.2	-0.	26.3	585.2	102.6	16.8	1.000006
92000.0	16.6	-47.2	-0.	25.7	585.3	109.9	18.0	1.000006
92500.0	16.3	-47.1	-0.	25.1	585.4	116.8	19.3	1.000006
93000.0	15.9	-47.0	-0.	24.5	585.5	123.8	20.6	1.000005

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.0 FEET MSL
 25 OCT. 66 1320 HRS MST
 ASCENSION NO. 836

UPPER AIR DATA
 0284003905
 WHITE SANDS SITE
 TABLE VII (Cont)

WSTM SITE COORDINATES
 E 468, 580 FEET
 N 185, 045 FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	REL. HUM. PERCENT	WIND DATA SPEED OF SOUND KNOTS	INDEX OF REFRACTION
93500.0	15.5	-46.9	0.	-0.	585.6	20.2
94000.0	15.2	-46.9	0.	-0.	585.7	19.5
94500.0	14.8	-46.8	0.	-0.	585.8	18.9
95000.0	14.5	-46.7	0.	-0.	585.9	17.2
95500.0	14.2	-46.7	0.	-0.	586.0	15.5
96000.0	13.9	-46.6	0.	-0.	586.1	13.7
96500.0	13.5	-46.5	0.	-0.	586.2	10.9
97000.0	13.2	-46.4	0.	-0.	586.8	8.0
97500.0	13.0	-45.5	0.	-0.	587.4	5.8
98000.0	12.7	-45.0	0.	-0.	588.1	7.0
98500.0	12.4	-44.5	0.	-0.	588.8	8.2
99000.0	12.1	-44.0	0.	-0.	589.4	9.4
99500.0	11.8	-43.5	0.	-0.	590.1	9.4
100000.0	11.6	-43.0	0.	-0.	590.7	9.5
100500.0	11.3	-42.5	0.	-0.	591.4	9.6
101000.0	11.1	-41.9	0.	-0.	592.1	9.7
101500.0	10.8	-41.4	0.	-0.	592.7	10.0
102000.0	10.6	-40.9	0.	-0.	593.4	10.2
102500.0	10.4	-40.4	0.	-0.	594.0	10.5
103000.0	10.1	-39.9	0.	-0.	594.7	9.6
103500.0	9.9	-39.6	0.	-0.	595.1	8.1
104000.0	9.7	-39.6	0.	-0.	595.1	6.6
104500.0	9.5	-39.5	0.	-0.	595.2	5.1
105000.0	9.3	-39.5	0.	-0.	595.2	4.7
105500.0	9.1	-39.5	0.	-0.	595.2	4.8
106000.0	8.9	-39.4	0.	-0.	595.3	4.8
106500.0	8.7	-39.4	0.	-0.	595.3	4.9
107000.0	8.5	-39.4	0.	-0.	595.3	4.3
107500.0	8.3	-39.3	0.	-0.	595.4	3.5
108000.0	8.1	-39.3	0.	-0.	595.4	2.8

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.0 FEET MSL
25 OCT. 66 1320 HRS MST
ASCENSION NO. 836

UPPER AIR DATA
0284003905
WHITE SANDS SITE
TABLE VII (Cont)

HSTM SITE COORDINATES
E 48° 58' FEET
N 18° 04' FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPOINT		REL. HUM. PERCENT	DENSITY GM/CUBIC MEYER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES REFRACTION	INDEX OF REFRACTION
		DEGREES	CENTIGRADE					
103500.0	7.9	-39.3	0°	-0.	595.5	25.6	2.0	1.0000003
109000.0	7.8	-39.3	0°	-0.	595.5	57.7	2.1	1.0000003
109500.0	7.6	-39.2	0°	-0.	595.5	98.3	2.4	1.0000003
110000.0	7.4	-39.2	0°	-0.	595.6	128.9	2.6	1.0000002
110500.0	7.3	-39.2	0°	-0.	595.6	164.6	2.9	1.0000002
111000.0	7.1	-39.1	0°	-0.	595.7	10.6	1.0000002	1.0000002
111500.0	7.0	-39.1	0°	-0.	595.7	10.4	1.0000002	1.0000002
112000.0	6.8	-39.1	0°	-0.	595.7	10.1	1.0000002	1.0000002
112500.0	6.7	-39.0	0°	-0.	595.8	9.9	1.0000002	1.0000002
113000.0	6.5	-39.0	0°	-0.	595.8	9.7	1.0000002	1.0000002
113500.0	6.4	-39.0	0°	-0.	595.8	9.5	1.0000002	1.0000002
114000.0	6.2	-39.0	0°	-0.	595.9	9.3	1.0000002	1.0000002
114500.0	6.1	-38.9	0°	-0.	595.9	9.1	1.0000002	1.0000002

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

RELEASE TIME (MST)	RAWIN- SONDE PTBAL	SECOND-STAGE IMPACT DISPLACEMENT IN MILES DUE TO WIND						THEORETICAL IMPACT FROM LAUNCHER (IN MILES)	
		11-216 FT	216-4000 FT	4000-73497 FT	TOTAL	AZI- MUTH (DEG- REES)	RANGE	W-S	E-W
N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W		
1035	1150	0.0	1.5E	3.2N	1.7E	3.5N	0.8E	6.7N	4.0E
1035	1220	0.4N	0.9E	3.7N	0.7E	3.5N	0.8E	7.6N	2.4E
1035	1235	1.9N	0.0	3.5N	1.6E	3.5N	0.8E	8.9N	2.1E
1035	1250	0.6N	0.7E	1.9N	1.6E	3.5N	0.8E	6.0N	3.1E
1035	1300	0.8N	1.1E	2.3N	2.3E	3.5N	0.8E	6.4N	4.2E
1035	1310	0.9N	3.2E	0.5N	1.6E	3.5N	0.8E	4.9N	5.6E
1035	1320	0.4S	2.1E	0.8S	1.2E	3.5N	0.8E	2.3N	4.1E
*1320	*1320	0.1S	2.1E	0.8S	1.2E	3.7N	1.0E	2.5N	4.3E

* Post-Shoot Data

LAUNCHER SETTING (ELEVATION 85.5 DEGREES QD)	AZIMUTH (DEG- REES)	MILES FROM LAUNCHER		
		RANGE	W-S	E-W
NO WIND IMPACT	358.9	63.4	63.4N	1.2W
PREDICTED SECOND-STAGE IMPACT	353.4	63.6	63.6N	6.1W
SECOND-STAGE IMPACT, RADAR TRACK	357.6	70.0	69.9N	2.9W
PREDICTED BOOSTER IMPACT	356.5	68.0	67.9N	4.2W
ACTUAL BOOSTER IMPACT	358.5	0.9	0.9N	0.0N/A
	N/A			

TABLE VIII. IMPACT PREDICTION DATA
NIKE-HIDAC STV (SR-041)

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Security Classification

DOCUMENT CONTROL DATA - RAD

(Security classification of this body of document and indicating classification level to be entered when the overall report is classified)

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15. ABSTRACT Meteorological data gathered for the launching of Nike-Hydac STV (SR-041) are presented for the Ballistic Systems Division of the U. S. Air Force, Avco Corporation and for ballistic studies. The data appear, along with calculated ballistic data, in tabular form.		

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Security Classification

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14 KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
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